

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1.-10. (Cancelled)

11. (Currently amended) A signal processing unit for use in a liquid crystal display device, the signal processing unit comprising:

a conversion section which converts an interlaced video signal into a progressive video signal; and

a correction section which corrects a video signal of current vertical period so as to emphasize grayscale transition at least from previous vertical period to current vertical period in the progressive video signal,

wherein

the conversion section is capable of conversions by two or more conversion methods, and

a degree of the grayscale transition emphasis performed by the correction section is changed in accordance with which conversion method among the two or more conversion methods is used by the conversion section,

the two or more conversion methods include a first conversion method of referencing to a video signal of other field for conversion and a second conversion method of not referencing to a video signal of other field for conversion, and

in a case where the conversion section performs conversion by the second conversion method, a degree of grayscale transition emphasis performed by the correction section is changed to be lower than in a case where the conversion section performs conversion by the first conversion method.

12. (Withdrawn) The signal processing unit for use in a liquid crystal display device according to claim 11, wherein:

the two or more conversion methods include a first conversion method of performing motion detection between fields and a second conversion method of performing conversion in a given procedure regardless of presence or absence of motion between fields, and

in a case where the conversion section performs conversion by the second conversion method, a degree of grayscale transition emphasis performed by the correction section is changed to be lower than in a case where the conversion section performs conversion by the first conversion method.

13. (Withdrawn) The signal processing unit for use in a liquid crystal display device according to claim 11, wherein:

the two or more conversion methods include a first conversion method of performing conversion by motion prediction between fields and a second conversion method of performing conversion in a given procedure regardless of presence or absence of motion between fields, and

in a case where the conversion section performs conversion by the second conversion method, a degree of grayscale transition emphasis performed by the correction section is changed to be lower than in a case where the conversion section performs conversion by the first conversion method.

14. (Cancelled)

15. (Withdrawn) The signal processing unit for use in a liquid crystal display device according to claim 12, wherein:

the second conversion method is a method of copying a video signal in a certain field, or averaging sets of video signals in a certain field or averaging sets of video signals in a certain field while being weighted, so as to convert the video signal in the field into a progressive video signal.

16. (Withdrawn) The signal processing unit for use in a liquid crystal display device according to claim 11, wherein:

the correction section includes a plurality of table memories each of which stores emphasis conversion parameter determined by at least the video signal of previous vertical period and the video signal of current vertical period, and

the table memories referenced to by the correction section are switched in accordance with a conversion method used by the conversion section, so that the degree of the grayscale transition emphasis is changed.

17. (Previously presented) The signal processing unit for use in a liquid crystal display device according to claim 11, wherein:

the correction section includes: a table memory which stores an emphasis conversion parameter determined by at least the video signal of previous vertical period and the video signal of current vertical period; and an adjustment section which adjusts a correction amount for the video signal of current vertical period in accordance with the degree of grayscale transition emphasis, the correction amount being determined with reference to the table memory.

18. (Withdrawn) The signal processing unit for use in a liquid crystal display device according to claim 11, wherein:

the degree of grayscale transition emphasis performed by the correction section is changed in accordance with not only the conversion method used by the conversion section but also a device internal temperature.

19. (Withdrawn) The signal processing unit for use in a liquid crystal display device according to claim 18, wherein:

the correction section includes a plurality of table memories each of which stores emphasis conversion parameter determined by at least the video signal of previous vertical period and the video signal of current vertical period, and

the table memories referenced to by the correction section are switched in accordance with (a) the conversion method used by the conversion section and (b) the device internal temperature, so that the degree of the grayscale transition emphasis is changed.

20. (Withdrawn) The signal processing unit for use in a liquid crystal display device according to claim 18, wherein:

the correction section includes a plurality of table memories each of which stores an emphasis conversion parameter determined by at least the video signal of previous vertical period and the video signal of current vertical period,

the correction section further includes an adjustment section which adjusts a correction amount for the video signal of current vertical period, the correction amount being determined with reference to any one of the table memories, and

a degree of the adjustment performed by the adjustment section is changed in accordance with a device internal temperature, and the table memories referenced to by the correction section are switched in accordance with the conversion method used by the conversion section, so that the degree of the grayscale transition emphasis is changed.

21. (Withdrawn) The signal processing unit for use in a liquid crystal display device according to claim 18, wherein:

the correction section includes a plurality of table memories each of which stores an emphasis conversion parameter determined by at least the video signal of previous vertical period and the video signal of current vertical period,

at least part of the table memories are shared between the two or more conversion methods used by the conversion section, and

the table memories referenced to by the correction section are switched in accordance with the device internal temperature, and switching temperatures for switching between the table memories are changed in accordance with the conversion method used by the conversion section, so that the degree of the grayscale transition emphasis is changed.

22. (Withdrawn) The signal processing unit for use in a liquid crystal display device according to claim 21, wherein:

the table memories are switched in such a manner that part of the table memories is referenced only when the conversion section performs conversion by a particular conversion method.

23. (Cancelled)

24. (Previously presented) A liquid crystal display device including the signal processing unit according to claim 11.

25.-32. (Cancelled)

33. (Withdrawn) The signal processing unit for use in a liquid crystal display device according to claim 13, wherein:

the second conversion method is a method of copying a video signal in a certain field, or averaging sets of video signals in a certain field or averaging sets of video signals in a certain field while being weighted, so as to convert the video signal in the field into a progressive video signal.

34. (Currently amended) The signal processing unit for use in a liquid crystal display device according to claim-14 11, wherein:

the second conversion method is a method of copying a video signal in a certain field so as to convert the video signal in the field into a progressive video signal.

35.-36. (Cancelled)

37. (Currently amended) The signal processing unit for use in a liquid crystal display device according to claim-14 11, wherein:

the second conversion method is a method of averaging sets of video signals in a certain field so as to convert the video signal in the field into a progressive video signal.

38. (Currently amended) The signal processing unit for use in a liquid crystal display device according to claim ~~14~~ 11, wherein:

the second conversion method is a method of averaging sets of video signals in a certain field while being weighted, so as to convert the video signal in the field into a progressive video signal.